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UNDER THE EDITORIAL DIRECTION OF

FRANK PARSONS NORBURY, M. D. AND THOS. A. HOPKINS, M. D.

Secretary: CHARLES WOOD FASSETT, M. D.

A COSMOPOLITAN BIWEEKLY FOR THE GENERAL PRACTITIONER

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Editorial Department.

THERE is no greater tribute to the laboratory worker and his achievements than the advancements made in our knowledge of malarial fevers within the past few years. Commencing with Lavern's im-

Malarial Fevers.

portant discovery of the parasites of the disease, subsequently confirmed by other scientific observers, the story of malarial fevers has been one of intense scientific interest and importance. Though the laboratory was the route by which the information was brought to light, and later as the conjectures regarding the life history of the malarial parasites were formulated the research work became of greater importance. Then came the work of Ross, who from '95 up to date has brought new facts to confirm the work of Lavern and has shown in addition that the malarial parasite is transmitted by the mosquito. The mosquito theory has not been fully accepted by the profession as yet, but that is a scientific deduction based upon extensive research work and experimentation is unquestioned. His theory has been confirmed by many notable scientists, among them being Koch, Manson, Bastranelli, Bigwami, Grassi and others. These workers have shown that not only is the malarial parasite transmitted by the mosquito, but that one variety of mosquitoes, the anopheles, is the host of malarial parasite.

Man is the undeniable source of infection and the mosquito is not born infected, but must receive its virus from some malarious person. The mosquito becoming infected the parasites pass through a life cycle which ends in the poison producing salivary glands, from which they are injected by the proboscis into the human body. In man the infection takes on the characteristic clinical features of malarial fever. The parasitology is essentially the same in man in all forms of malarial fever, viz., the quartan, tertian and aestivo-autumnal fever.

The study of the clinical pathology of the blood shows this cycle, and explains the "chills and fever" with which we are all familiar. It is very important in the light of the recent confirmed researches regarding malaria that every attention be given to the prevention of the disease.

As Ross well says, "Not only our comfort, but our security depends upon the measures we adopt against these insects"—the mosquitoes which indeed are the true sources of danger in the transmission of malarial fevers. The recent work in prevention of the disease is designed to get rid of the mosquito which transmits it, and the thorough organization of brigades for this purposes promises more effective results than other methods. The work accomplished in Cuba in overcoming the spread of yellow fever by annihilating its medium of transmission, that variety of mosquito, the, *Culex* has given a practical and lasting impression of the power for good to be had in thorough organization for hygienic purposes. It pays to be clean, both morally and financially, and it would seem that the problem of malarial fevers is resolving itself into one of public hygiene. This season has witnessed an unusual prevalence of the pest, mosquitoes, due largely to the excess of rain, with high water which has left many breeding places for the mosquitoes. We can expect, therefore, an unusual prevalence of malarial fevers during the late summer and early fall. Physicians familiar with early history of his part of the country, and especially with prairie regions, know that malarial fevers are decidedly less prevalent now than formerly, and due to the extensive drainage introduced in the development of farm lands. Drainage here is a practical demonstration of the facts deduced by the observations made by Koch, Ross and others, where they reduced the possible breeding places of the mosquito, and by so doing reduced the prevalence of the disease. The mosquito-theory has become the mosquito-fact of etiology of malarial fever and every physician should well consider the work of Howard in this country, that of Ross, Manson Koch and other European observers, and endeavor to profit by these intensely interesting scientific advancements. F. P. N.



ONE of the most trying experiences of the practitioner is to formulate a prognosis. To the young man just entering practice there is perhaps nothing so overwhelming as the question of prognosis; to him diagnosis and prognosis represent the Scylla and Charybdis of practice and call upon him to command all of his skill, tact and good common sense in order to steer successfully through these difficult and trying ordeals to be confronted in every serious case.

The Question of Prognosis.

The following helpful editorial (*Medical Record*, August 16, 1902) is full of consolation and good advice, and should be read by every earnest worker in clinical medicine. It was written by one, evidently, who with accumulated experience, views every case as one worthy of study and thoughtful consideration from every view which clinical knowledge can suggest:

"Every physician who has inadvertently committed himself to a positive opinion regarding the outcome of a case under his care, learns by bitter experience and becoming chagrin how difficult—in fact, impossible—it is to be absolutely sure of his ground. There are in the vast majority of instances so many incidental circumstances to be considered in forming

conclusions that he is never safe in trusting to a possible chance. The verdict, whether pro or con, always determined by time, is sure to settle the question for or against him beyond the chance of explanation for his demonstrated mistake. Thus the wise man always qualifies and inserts the "if" in all his prognostications. In this, avoiding conclusions which are obviously beyond his control, he is willing to venture in a purely suggestive way, as to probabilities, rather than actualities. His reasons for such a course are well-founded and beyond the range of ordinary argument.

"He is not long in practice before he becomes aware of the fact that the most unexpected things happen; the most trivial diseases in apparently strong patients end disastrously, while the severe ones, generally looked upon as hopeless, recover. Oftentimes also death occurs as suddenly and unexpectedly as with a stroke of lightning from a clear sky. No one of the signs of dissolution are absolute. Even the hippocratic face sometimes survives to smile at the would-be prophet. The old physician who said he never acknowledged that a patient was caught. Even when at his wits ends to account for the result, he found it safer to accept the explanations of the patient's friends than to offer any himself. It was in one way the cultivation of the faculty of never being surprised at anything, but quietly expecting everything. Ordinarily there are difficulties enough in trying to guide the ship without attempting to govern the storm or the fog. The only cheerful thing to say is that the vessel will eventually reach the port if there be no accident—and death is always the accident. We are told by the highest authorities that the sudden deaths give no preliminary sign. Before an attack of apoplexy, the stroke of which is so often given during sleep, the patient often says on retiring, that he never felt in better physical condition. With heart disease, the victim often passes away with an unfinished sentence on his willing lips. Death simply touches the pendulum, and he stops like a clock. The wasting consumptive, wearily awaiting the messenger, asks that his head be raised—and the last gasp is given. The fatal coma of uremia often comes on as suddenly as the blowing out of a light. So far as human prediction is concerned, the exact time depends upon a mere whim of the wasting destroyer; and yet the physician is expected to explain the when and the how.

"In his contemplation of conditions controlling the outcome of disease he must take many-sided views as to correctness of the diagnosis and treatment, the often uncertain action of remedies, the variable vitality of the patient, and reconcile all to the reactionary tendencies of the particular case in hand. While it is always necessary and proper to be optimistic to the patient, it is never safe to say he is absolutely beyond danger. This would obviously apply with more particular force to the patient's friends, who are not supposed to communicate suspicions to the one most particularly interested. 'May he die suddenly?' 'I hope not, although sudden deaths are not common in this disease.'

"When we sum up the situation on the question of the always unknown quantity—the vitality of the particular individual—what more can be said, and what more can be expected?"

Fortnightlettes

THE Frisco Railway Hospital, at Springfield, Mo., is to be enlarged to double its present size.

DR. A. P. OHLMACHER has been appointed superintendent of the Ohio Hospital for Epileptics, at Gallipolis, to succeed Dr. Coleman, resigned. Dr. Richard F. O'Connell has been appointed assistant.

THE INDIANA STATE MEDICAL SOCIETY.—The officers for the coming year are as follows: President, Dr. J. B. Berteling, South Bend; vice-president, Dr. Will. H. Gilbert, Evansville; secretary, Dr. F. C. Heath, Indianapolis; assistant secretary, Dr. J. H. Grant, Richmond; treasurer, Dr. A. E. Bulson, Indianapolis.

A SHIPMENT OF PREPARED OPIUM, worth more than \$500,000, arrived at San Francisco from Macao, China, July 5, on the Steamer Doric. The opium consists of 810 cases, or 33,210 pounds, upon which the duty is \$199,260, making the commercial value \$531,000. It is the largest shipment of opium that ever reached that city.—*Meyer Bros. Druggist.*

AMERICAN ORTHOPEDIC ASSOCIATION.—At the sixteenth annual meeting, held in Philadelphia, the following officers were elected for the ensuing year: President, Dr. L. A. Weigel, Rochester, N. Y., Vice-presidents, Drs. R. H. Sayre, New York, and R. T. Taylor, Baltimore, Secretary, Dr. John Ridlon, Chicago, Treasurer, Dr. E. G. Brackett, Boston.

COLLEGE WILL NOT REOPEN.—The faculty of the Cincinnati College of Medicine and Surgery decided, August 8, not to reopen for the coming fall session. The reason for this closure is the falling off in attendance, which has become so marked in all institutions of medical teaching throughout the State since the entrance requirements have become so rigid.

WORLD'S TOBACCO USERS.—According to recent statistics, the average consumption of tobacco by each person in the various countries of the world is as follows: Netherlands, 3,400 grams; United States, 2,110; Belgium, 1,552; Germany, 1,485; Australia, 1,400; Austria and Hungary, 1,350; Norway, 1,335; Denmark, 1,125; Canada, 1,050; Sweden, 940; France, 933; Russia, 910; Portugal, 850; England, 680; Italy, 635; Switzerland, 610, and Spain, 550.—*Med. Record.*

A CRYING NEED.—The last census contained several surprises, but the one shown in the table below would indicate that physicians looking for a location need not long hesitate in a choice between Missouri's three largest cities. St. Joseph's physicians must be overworked:

City	No. of Physicians	Population	Per Cent to 10,000 Pop.
St. Louis.....	1,220	575,238	21.208
Kansas City.....	596	163,752	36.396
St. Joseph.....	134	102,979	13.119

Society Proceedings.

PRELIMINARY PROGRAM OF THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The following is a preliminary program of the twenty-eighth annual meeting of the Mississippi Valley Medical Association to be held at Kansas City, Mo., October 15, 16 and 17, 1902:

Address in Medicine, by Dr. Hugh T. Patrick, Chicago, Ill.

Address in Surgery, by Dr. Geo. W. Crile, Cleveland, O.

1. Oil of Erigeron, its Use in Hemorrhages and Uterine Congestions, by J. M. Postle, Hinckley, Ill.
2. The Criminal Responsibility of the Epileptic, by John Punton, Kansas City, Mo.
3. Isolated Thrombosis of the Jugular Bulb, its Diagnosis and Surgical Treatment, by Norval H. Pierce, Chicago, Ill.
4. The Surgical Treatment of Trigeminal Neuralgia, by Truman W. Brophy, Chicago, Ill.
5. Drainage in Surgery, by J. Lively Johnson, Louisville, Ky.
6. Smallpox, by J. M. Batten, Downingtown, Pa. Discussion opened by Clinton E. Sapp, Omaha, Neb.
7. Syphilis in the Negro, by Francis D. Kendall, Columbia, S. C.
8. Extrinsic Traumatisms of the Spine, their Diagnosis, Pathology and Treatment, by Thos. H. Manley, N. Y.
9. The General Consideration of Surgical Patients, by A. J. Ochsner, Chicago, Ill.
10. The Treatment of Extensive Rectal Strictures, by Emil Ries, Chicago, Ill.
11. Cancer, by L. H. Warner, New York City.
12. Plaster of Paris the Best Dressing for Injuries to and after Operations on the Extremities, Chest and Head, by A. C. Bernays, St. Louis, Mo.
13. Tubercular Peritonitis, by A. M. Pond, Webster City, Ia.
14. The Value of Ureteral Catheterization in the Male and Female, with Presentation of an Original Uretero-Cystoscope for Effecting that Procedure, by Bransford Lewis, St. Louis, Mo.
15. Antistreptococcic Therapy in Septic Conditions, by C. E. Ruth, Keokuk, Ia.
16. What Class of Pulmonary Cases do Well in Colorado? by W. A. Campbell, Colorado Springs, Col.
17. Medical Gynecology, by John H. Fuller, Wichita, Kas.
18. Diagnostic Points of Difference between Spermatorrhea and Seminal Pollutions, by F. R. Sturgis, New York City.

19. Some Developments in the Therapy of Iodoform, by J. J. Gaines, Excelsior Springs, Mo.
20. The Treatment of Tuberculosis, by Thos. Bassett Keyes, Chicago, Ill.
21. Preventive Medicine, by C. E. Crawford, Rockford, Ill.
22. A Severe Case of Purpura Hemorrhagica, Recovery, by B. F. Campbell, Burlington, Ia.
23. The Nature and Treatment of Tuberculosis, by Adam E. Ford, Denver, Col.
24. Renal Calculi or Gall Stones; Differential Diagnosis, Report of a Case, by Chas. E. Barnett, Fort Wayne, Ind.
25. Radical Treatment of Mastoiditis, with Report of Cases, by Robert Everett Moss, San Antonio, Texas.
26. Exophthalmic Goitre, by Eliza H. Root, Chicago, Ill.
27. The Treatment of Typhoid Fever with Castor Oil, by C. C. Bass, Columbia, Miss.
28. The Mechanics of Intubation, by B. F. Gillmor, Creston, Ia.
29. Myomatous Tumors of the Uterus, by Leora G. Bowers, Richmond, Ind.
30. Relation of Gonorrhea to Tuberculosis of the Genito-Urinary Tract, by Daniel N. Eisendrath, Chicago, Ill.
31. Climate and Electric Peculiarities of Colorado Favoring recovery in Pulmonary and Intestinal Diseases and from Surgical Operations, by J. E. MacNeill, Denver, Col.
32. Chronic Nasal Catarrh, Medical and Surgical Treatment, by T. E. Speed, Jefferson, Texas.
33. Neurasthenia, its Etiological Relation to the Other Neuroses, by J. C. Gebhart, Dallas, Texas.
34. Vaccine Virus and Vaccination, by Hugh A. Cowing, Muncie, Ind.
35. Operation for Cancer of the Rectum, by Emerson M. Sutton, Peoria, Ill.
36. A List of the Medical Plants Indigenous to Southeast Kansas, by W. S. Newlon, Oswego, Kas.
37. The Care and Treatment of Girl and Woman, by Walker B. Gossett, Louisville, Ky.
38. Retarded Development of the Fetus and Prolonged Gestation, by W. D. Carter, Nashville, Ill.
39. Spinal Injuries, by Carl E. Black and Frank Parsons Norbury, Jacksonville, Ill.
40. The Present Status of the Treatment of Mastoiditis, by Geo. F. Keiper, Lafayette, Ind.
41. Through-and-through Intestinal Suture, with the Report of Additional Cases, by F. Gregory Connell, Leadville, Col.
42. Rheumatic Neuritis, Neurasthenia, Report of Cases, by John J. Taylor, Streator, Ill.

43. The Causation of Disease, by G. S. Stein, Columbus, O.
 44. The Excellent Results in the treatment of Disease, especially Tuberculosis, by the Use of the Ultra-Violet Ray, by Albert E. Sterne, Indianapolis, Ind.
 45. Neurasthenia, by Geo. F. Butler, Alma, Mich.
 46. Professional Honor, by C. W. Heffner, Bellefontaine, O.
 47. Laminectomy for Fracture-Dislocation of the Fourth and Fifth Cervical Vertebrae, by Jos. Rilus Eastman, Indianapolis, Ind.
 48. A Plea for the Abandonment of the Abdominal Belt after Celiotomy, by Maurice Kahn, Leadville, Col.
 49. Sympathetic Eye Diseases, by James Moores Ball, St. Louis, Mo.
 50. Cancer of the Uterus in the Mississippi Valley, by Emory Lanphear, St. Louis, Mo.
 51. Chronic Interstitial Nephritis, by R. Alexander Bate, Louisville, Ky.
 52. The Medical Side of Surgical Cases, by I. N. Love, New York City.
 53. Opium in Surgery, by Edward Wallace Lee, New York, N. Y.
 54. Cystitis, by S. E. Findley, Mansfield, O.
 55. The Question of Digestion and Indigestion in Pulmonary Laryngeal Tuberculosis, particularly Mixed Infection, by Paul Paquin, Asheville, N. C.
- Papers by E. H. Richardson, Atlanta, Ga.; Vincent J. Hawkins, St. Paul, Minn.; L. W. Beardsley, St. Louis, Mo.; M. M. Smith, Austin, Tex.; J. E. Wiggins, East St. Louis, Ill.



AN appropriation of \$500,000 has been made for the erection in New York of a hospital for contagious diseases.

THE NEW GERMAN PRACTICE ACT.—By the new law in Germany, a candidate for permission to practice medicine, besides passing successful examinations, must "practice for one year at a university clinic or specially designated hospital in the German Empire, of which time at least a third is to be devoted to internal diseases. The candidate may choose the place but without permission to change it more than twice. The time of practice may also be passed with a suitable medical man, for which the sanction of the imperial chancellor is to be obtained."

OPIUM EATING IN HAWAII.—Hawaii is said to be the paradise for the opium eater. Nowhere else is its sale so unrestricted or its use so widespread as in this territory since its annexation. Under the provisional government opium was in the sole control of the Board of Health. After annexation these laws were declared obsolete, and, according to the Boston Transcript, there is no restriction now as to the use of the drug or its sale. Nearly as much of the drug is taken to the islands as to the entire United States. An effort is to be made to enact some law against its use which will stand in the courts.—*Am. Med.*

Favorite Prescriptions

Pemphigus.—Dr. Shoemaker (*Med. Bulletin*) reports a case of pemphigus in which the following formulas were used with excellent results:

R Strychninae sulphatis..... gr. $\frac{1}{10}$
 Acidi arsenosi..... gr. $\frac{1}{10}$
 Ferri pyrophosphatis..... gr. j

M. et ft. pil. No. j.

Sig.: Four such pills daily.

Locally:—

R Ungt. zinci oxidi.....
 Ungt. aquae rosae.....aa 3ss
 Acidi carbolici..... gr. x
 Chloralis hydratis gr. x

M. et ft. ungt.

Synovitis.—The following is recommended in treatment of synovitis from any cause:—

R Chloral hydratis..... 3iv
 Acidi carbolici..... 3ss
 Aquae, q. s. ad..... Oj

M. Sig.: Apply, as hot as possible, upon layers of lint, changed every hour and covered with oil silk.—*J. A. M. A.*

Galactagogue.—

R Calcium glycerinophosphate 3i
 Tinct. of nux vomica..... 3iv
 Elixir of calisaya, to make..... 3iv

Tablespoonful four times a day.—*Merck's Archives.*

A Hypodermic Diuretic for Uremic Patients.—Dr. Cassine (*Nord medical*, June 1st) recommends the following in cases of gastric intolerance, where diuretic medication is requisite:

R Boiled water..... 50 grammes
 Sodium chloride..... 1 gramme
 Sodium phosphate 2 grammes
 Sodium sulphate..... 4 grammes

M.

About 75 minims to be ejected morning and evening in the skin of the buttock.

A Mixture for Chronic Rheumatism.—Dr. P. C. Layne recommends the following formula which he considers almost a specific for chronic rheumatism and its congeners, neuralgia, sciatica, etc.:

R Ext. Zanthoxyli fl..... 3i-3ii
 Ext. Asclepiades fl.....
 Ext. Dulcamarae fl.....aa 3ss-3i
 Ext. Taraxaci fl..... 3ii
 Spir. Frumenti, q. s. ad 3viii

Tablespoonful three times a day after meals.—*Merck's Archives.*

Original Department.

PAPERS for the Original Department should be in hand one month in advance, and contributed to THE MEDICAL FORTNIGHTLY exclusively. A liberal number of extra copies will be furnished authors, and reprints may be obtained at reasonable rates, if request accompanies the manuscript. Engravings from photographs furnished free.

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Remarks on Splanchnoptosis.

By BYRON ROBINSON, B. S., M. D.,

CHICAGO.

Read before the Tri-State Medical Society, at Chicago, April 3, 1902.

SPLANCHNOPTOSIS, relaxed abdominal walls and prolapse of the abdominal viscera, is a widespread disease. I will discuss, first, shortly the three great etiologic factors of splanchnoptosis, viz.: 1. Relaxed abdominal walls. 2. Distalward movements of viscera. 3. Gastro-duodenal dilatation, and secondly the fundamental methods of treatment in splanchnoptosis, viz.: (1) drainage of the visceral tracts; (2) abdominal supporters; (3) union of the muscoli recti abdominales in one sheath; (4) the fixation by sutures of the overlapping fascial abdominal walls, and (5) gastro-enterostomy.

1. THE ABDOMINAL WALL.

Its Elemental Fibres Elongate and Separate.—The elements of the abdominal wall are (a) fascial fibers; (b) muscular fibers, and (c) elastic fiber. In splanchnoptosis these three elemental fibers elongate and separate, producing a relaxed abdominal wall, and the viscera lose their chief support. The special fascial lines of the abdomen which visibly yield are the linea alba and the lineae seunlunares, i. e., the fascial fibers elongate and separate. The special abdominal muscles which yield on the muscoli recti abdominales which elongate, separate, become diastatic, allowing visceral hernia. The physiology and anatomy of the abdominal wall is to support and fix the viscera. The mesenteres are not for mechanical support, but act as neuro-vascular visceral pedicles. The abdominal wall is a highly elastic apparatus fitting exactly the condition of the viscera.

If any of the fascial muscular or elastic fibers become elongated or separated the delicate balance of the viscera is lost—anatomy and physiology become deranged.

The cause of relaxed abdominal walls lie in the elements of the wall, viz., fascia, muscle, elastic fiber, skin and peritoneum. The most frequently supposed course of relaxed abdominal walls is rapidly repeated gestations as the distention of pregnancy produces physiologic elongation

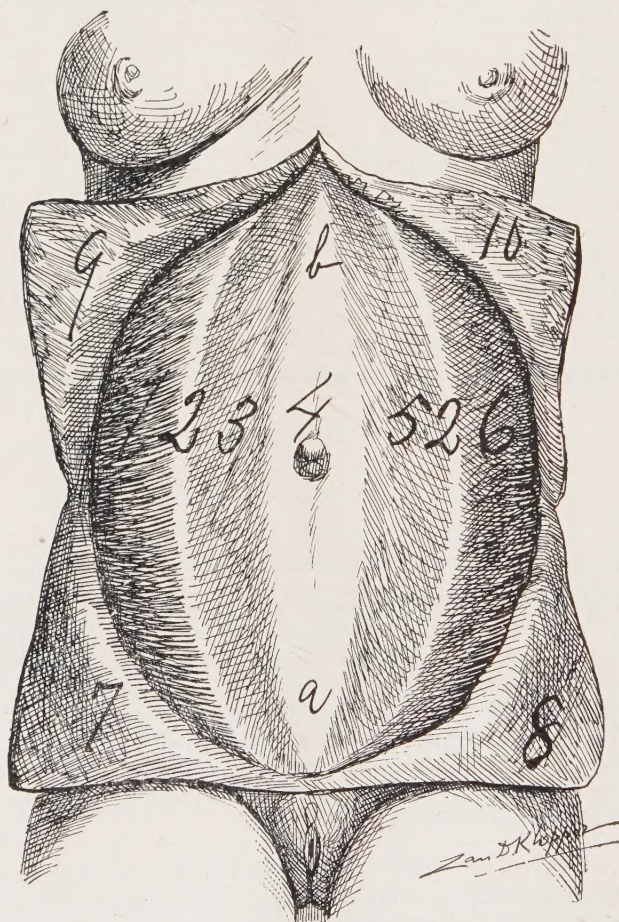


FIG. 1.—Splanchnoptosis in which the fascial and muscular fibres of the abdominal wall have separated and elongated. a, the fascia at the linea alba (4, a-b and 1, semilunares (2-2) has yielded by separation and elongation of its fibres; b' all the muscles of the abdominal wall have yielded by separation and elongation of their muscular fibres; c, the muscoli recti abdominales (3-5) have yielded by diastasis. The chief fascial separation and elongation is at the linea alba, 4, since the mesenteries, i. e. the neuro-vascular visceral pedicles are not for mechanical support the viscera follow the yielding abdominal wall. Separation and elongation of the fascial and muscular fibres induces visceral ptosis (derangement in circulation, assimilation, secretion and sensation) and pain from trauma on the periphery of the nerves inducing neurosis.

and separation of fascial fibers (especially diastasis of the recti abdominales) with elongation and separation of the elastic fibers. For reasons not well known the physiologic relaxed abdominal walls of pregnancy are not always completely restored. However, many other conditions of intra-abdominal pressure induce relaxed abdominal walls.

2. DISTALWARD MOVEMENTS OF VISCERA AND ELONGATION OF NEURO-VASCULAR VISCERAL PEDICLES.

The Viscera Becomes Dislocated.—The mesenteres are not designed for mechanical support, but should be termed neuro-vascular visceral pedicles to indicate their office. The viscera are controlled in the abdomen by the mesenteries much as a specimen in a jar of fluid with the cord attached to it. The abdominal wall supports the viscera in the same way that the fluid in the jar supports the specimen. Since the mesenteries are not for mechanical support as soon as the abdominal wall the real mechanical visceral support become relaxed, the viscera follow the yielding walls. Also the mesenteries possessing but slight resistance to trauma, the weight of the viscera rapidly elongates them to the extent of the relaxed abdominal walls. In other words abdominal viscera will follow relaxed abdominal walls because the walls are the chief visceral support and not the mesenteries. The reason that elongated mesenteries and dislocated viscera do not exist in the physiologic relaxed abdominal walls of pregnancy is because the increased volume of the uterus forces the viscera proximalward. In the relaxed abdominal walls of the puerperium, senility and diseased conditions the viscera are found dislocated in the distal end of the abdominal cavity. Also the mesenterial insertion on the dorsal wall passes distalward.

3. GASTRO-DUODENAL DILATATION.

This is rather a result of the relaxed abdominal walls and distalward movements of viscera than an etiologic factor of splanchnoptosis. However, it is a logical consequence of the third stage. Gastro-duodenal dilatation is caused by compression of the transverse segment of the duodenum by the superior mesenteric artery vein and nerve. Gastro-duodenal dilatation is a very widespread disease, and is chiefly mistaken for gastric dilatation. The fixation apparatus of the duodenum, especially its transverse segment does not allow it to pass distalward, and hence the more extensive the splanchnoptosis the more vigorous does the superior mesenteric artery vein and nerve clamp the transverse duodenal segment. Gastro-duodenal segment, gastro-duodenal dilatation begins definitely on the early establishment of splanchnoptosis.

The results of splanchnoptosis are extensive disturbances.

In general in splanchnoptosis canalization is compromised, nerve periphery traumatized, motion, secretion, respiration, visceral function, circulation and muscular contraction are disordered—ending in malnutrition and neurosis.

In special organs splanchnoptosis plays its chief role.

Tractus Vascularis	- Arteries - Veins - Lymphatics	- Dislocation - Lumen compression - Dilatation - Contraction - Anemia - Congestion - Disordered circulation - Malnutrition
Glands	- Excessive secretion - Deficient secretion - Disproportionate secretion	
Tractus Respiratorius	- Accelerated - Slowed - Irregular - Disordered deficient - Oxygenation	
Visceral Function	- Exacerbated - Inhibited - Irregular	
Nerves	- Traumatized (pain) - Disordered motion - Disordered sensation - Muscular inco-ordination	
Tractus Intestinalis (Damaged the most)	1. Lumen 2. Rhythm disordered 3. Secretion	- Excessive - Deficient - Disproportionate
Tractus Urinarius	4. Nerve periphery traumatized 5. Kink and flexures made more acute 6. Supports tensionized.	
Tractus Genitalis	7. Blood and lymph circulation compromise 8. Accessory glands compromised in canalization, secretion, motion, rhythm and nerve periphery	

The diagnosis of splanchnoptosis is made by inspection, palpation, percussion, mensuration and by elevating the abdomen with the hands.

The treatment of splanchnoptosis is (1) medical, (2) mechanical, and (3) surgical.

MEDICAL TREATMENT.

Drainage (hydrotherapy).—The medical treatment of splanchnoptosis will always be the most important, because it applies equally to all cases. It is announced in the one word drainage. The visceral tracts should be drained by eight ounces of hot one-half normal salt solution every two hours for six to eight times daily.

The souverin drain is semi-normal salt solution (normal salt solution nauseates). One-half pint of hot semi-normal salt solution every two hours regardless of meals establishes regular daily evacuations of the tractus intestinales, increase the amount of urine and sweat, washes the internal tissues and relieves the system of waste laden blood. In a few months with such treatment the patient's appetite, sleep, evacuation of tractus intestinalis, urinarius and perspiratorius are wonderfully improved. The subject feels practically well. Salt rubs of the skin stimulates the nerve periphery and secretion of the sweat glands. The food should be leguminous, cereals, vegetables, graham bread, i. e., such a character as to leave a fecal residue so that the muscularis of the tractus intestinalis will have resistance on which to exercise. Fecal residue also stimulates the mucosa to active secretion. Concentrated foods, as meats, pies, cakes, pastries and

pudding should be forbidden to splanchnoptotics as they irritate the tractus intestinalis and leave an insufficient fecal residue to excite muscular action—peristalsis.

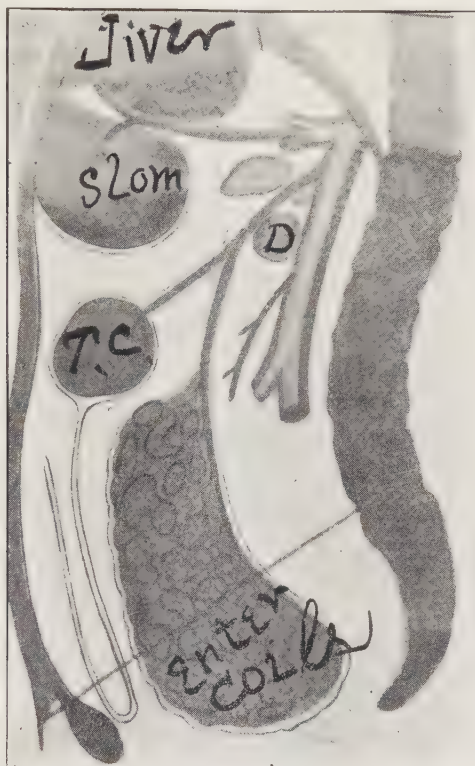


FIG. 2.—A profile view to illustrate how the transverse segment of the duodenum is clamped by the superior mesenteric artery, vein and nerve in splanchnoptosis. Note the excessive distalward movement of the collective loops of the enteron. The more the loops of enteron pass into the pelvis the more acute becomes the mesenteric aortic (vertebral) angle. This illustrates the third factor in splanchnoptosis. D, duodenum. C, colon.

Regular and ample drainage during the lifetime of the splanchnoptic is the only hope of health. I use the following compressed into a tablet, formerly of Parke, Davis & Co.

Socat. aloes.....	gr. $\frac{1}{3}$
K. H. CO ₃	gr. $\frac{1}{3}$
NaH CO ₃	gr. 1
MgS O ₄	grs. 2

Fl. ext. case sig. gr. 1-40.

The splanchnoptic is started by taking one-half of the tablet in one-half a pint of one-half normal salt solution every two hours for six times

daily. In about two months the patient does not require the tablet, the one-half pint of semi-normal salt solution every two hours being amply sufficient to drain all visceral tracts. The splanchnoptotic suffers chiefly from non-drainage and from deficient and disproportionate secretion with consequent fermentation and meteorism—indigestion.

Constipation is the fate of the splanchnoptotic from lack of expulsive powers of the abdominal wall. The dyspepsia frequently accompanying

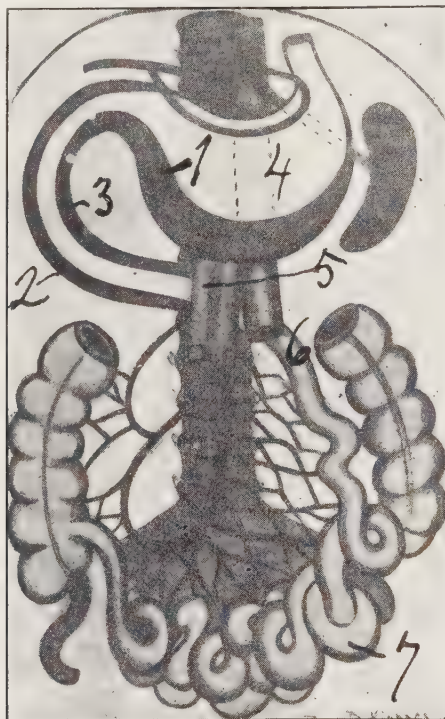


FIG. 3.—Front view of gastro-duodenal dilatation from compression of the transverse segment of the duodenum by the superior mesenteric vein, artery, and nerve. 1, 2 and 3 colored portion showing dilatation of stomach and duodenum; 4, stomach; 5 superior mesenteric artery vein and nerve bound in a strong bundle and compressing the duodenum against the vertebral column; 6 jejunum (note how its natural size is retained, while on the opposite side the duodenum is dilated). 7 Enteroic loops in the pelvis dragging under and more on the structure compressing the duodenum.

splanchnoptosis is mainly owing to non-drainage of stagnant contents in the digestive tracts. The more the subject is drained, the less waste-laden blood with mental and physical depression, the less meteorism and intra-abdominal pressure.

Massage and gymnastics are excellent remedies to strengthen the abdominal muscles, which in turn massage the abdominal viscera aiding peristalsis and blood lymph and fecal circulation.

2. MECHANICAL TREATMENT.

Abdominal Supporters.—Much utility and comfort arise from the use of properly fitting abdominal supporters. The kinds we have used are: (1) non-elastic, (2) elastic, and (3) the author's pneumatic rubber pad placed inside of an elastic or non-elastic abdominal binder. The objection

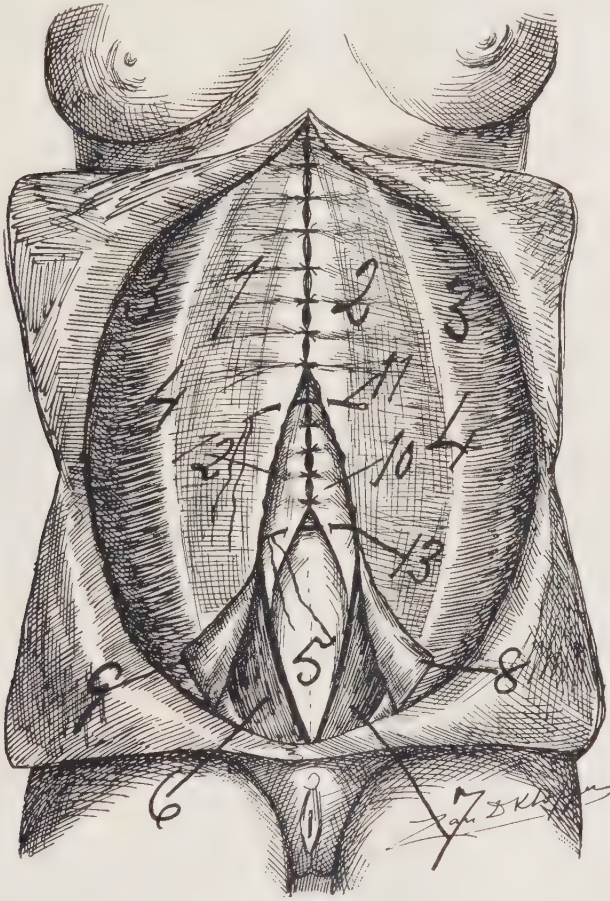


FIG. 4.—Operation for visceral ptosis by placing the two muscoli recti abdominales in a common sheath; 6 and 7 are the recti muscles; 12 and 10 is the posterior sheath, being sutured; 7 and 11 is the anterior sheath, being sutured. This restores the poise and balance of the viscera; 7 and 2, sheaths of the recti; 3 and 3 external oblique; 5, linea alba and 4 and 4, lineae semilunares.

against the use of an abdominal binder in splanchnoptosis, because it does not teach the muscles self-strength, is as worthless as the objection against the use of a splint in fractures. The fact to remember is that the abdominal muscles are stretched beyond self or independent help. Abdominal supporters do not cure, but properly fitting ones help the patient to com-

fort and usefulness. It is not sufficient to recommend a binder. The physician should examine it to be sure that it fits properly, both for the grade of splanchnoptosis and for the avocation of the patient. The difficulty of fitting a proper support is due to the varying position of the patient—walking, sitting or lying. The author has invented a rubber air pad which has the shape of an axe. This is placed inside of the binder, and subsequently filled with air to the desired size. The rubber air pad insures a fitting of the abdomen like a water bed, whether spare of fleshy, and also the size may be adjusted to the comfort of the patient. The binders are useful in moderate nephroptosis, which is the easiest of all splanchnopto-

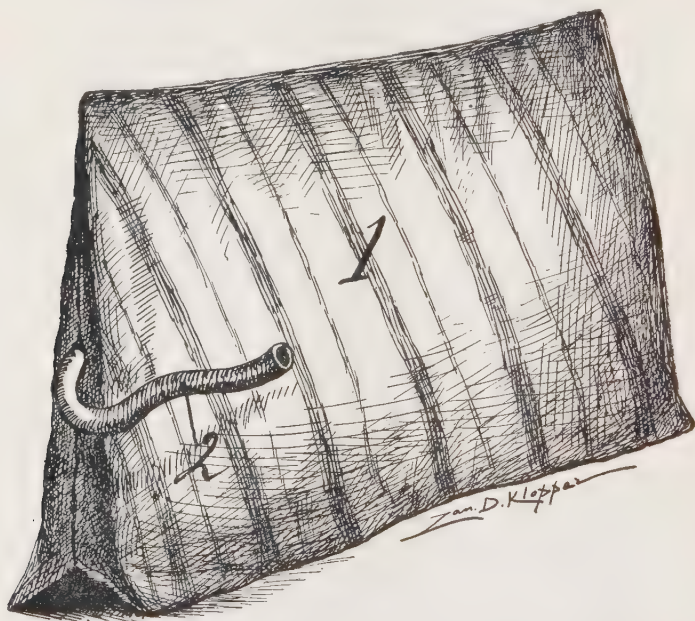


FIG. 5.—Author's rubber air pad for visceral ptosis half distended. It is to be placed inside an abdominal supporter. 1, side of rubber pad; 2, the rubber tube through which the rubber pad can be distended with air. (This rubber air pad is manufactured by John Drake & Co., of Chicago.)

sis to aid, but when it has become advanced, binders are not only of little value, but frequently harmful. In severe or distinctly diagnosable hepatoptosis I have seen none or little utility in binders. All tight waist bands should be removed, and clothing should be suspended from the shoulders, or from hooks on a corset waist. If one experiment on a dead body with a tight-fitting corset, the organ which will suffer the widest displacement will be the right kidney. All tight corsets should be abandoned, but a so-called waist corset is useful to adjust and from which to suspend the clothing.

Since binder is to restore elongate and separated fascial and muscular fibres of the abdominal walls, it must fit snugly, especially the distal ab-

domen. Two rubber tubes must be employed passing between the limbs to fix the binder so that it will not slip proximally. The binder generally only forces dorsally and proximally the abdominal wall, but the addition of the author's pneumatic rubber pad adds to this the forcing of the viscera proximalward by acting like a pregnant uterus which lifts the viscera toward the thoracic diaphragm. If the splanchnoptosis is not too far advanced, the rubber pneumatic pad being adjusted and blown up while the patient lies on the back, will prevent the viscera gaining the lesser pelvis—the dangerous ground for stenosis of ducts, vessels and viscera, and traumatizing nerve periphery. The binder should be removed or loosened for the night's rest.

Finally I have abandoned all narrow abdominal binders and now use an abdominal binder belly shaped which extends from pubic crest to the xiphoid cartilage with the pneumatic rubber pad placed inside, so that ventral as well as lateral abdominal walls are supported.

SURGICAL TREATMENT.

1. *The Union of the Two Recti Abdominales in a Single Sheath.*—My attention was first called to the subject of lax abdominal walls by Prof. Karl Schroder, whose pupil I was for a year. In that year (1884-1885) Prof. Schroder, the greatest gynecologic teacher of his age, was at his zenith of fame, and his clinic was vast. In fact, he tapped the whole of Europe for his material. He discussed in his clear style the misfortune of lax abdominal walls, and he resected the large oval segments of the abdominal wall lying between the diastatic recti abdominales. He then united the sheaths of the recti in the median line. But Prof. Schroder said then to his pupils that he was not fully satisfied it was the best surgery that he knew at that time. Later German surgeons improved on Schroder's ideas by splitting the sheath of the recti and enclosing both the recti abdominales in one sheath by uniting the recti sheaths ventrally and dorsally to the recti muscles. In 1895, Dr. Orville W. MacKellar and I operated on a woman pregnant four or five months, where the diastasis of the recti abdominales was very marked, and the uterus, on coughing or extra-intra-abdominal pressure, would project between the recti abdominales. We united the split sheaths of the recti anterior and posterior, enclosing the two muscoli recti abdominales in one sheath. Dr. MacKellar reports to me at present that his patient is perfectly well, and the operation was a success. Dr. MacKellar was at the delivery and the recti sheaths remained perfectly intact. For the post-operative hernia, for years past at the Mary Thompson Hospital, I have split recti and enclosed them in a single sheath. Every one with sufficient experience knows that the post-operative hernia of any considerable size, in women over 40, is in every case accompanied by splanchnoptosis. Dr. MacKellar and I have records to show that six years after enclosing of the two recti abdominales in a single sheath, for splanchnoptosis, the operation is a success. The mesenteries are not to suspend the viscera, but to act as a neuro-vascular visceral pedicle, and to prevent the entanglement with other viscera. It is the abdominal wall that holds the viscera in position.

Besides I showed in 450 detailed records of personal autopsic abdominal inspection, that in 96 per cent of the subjects the enteron has a mesenteron sufficiently long to herniate through the inguinal, femoral or umbilical rings. Hence the mesenteries must be looked upon as neurovascular visceral pedicles, and not as suspensory organs, while the abdominal walls are the great supporters and retainers of the viscera. And as every anatomist knows, the recti abdominales are among the chief regulators or governors of visceral poise, at least they retain the viscera in their first delicate normal balance. In uniting the two recti abdominales into a

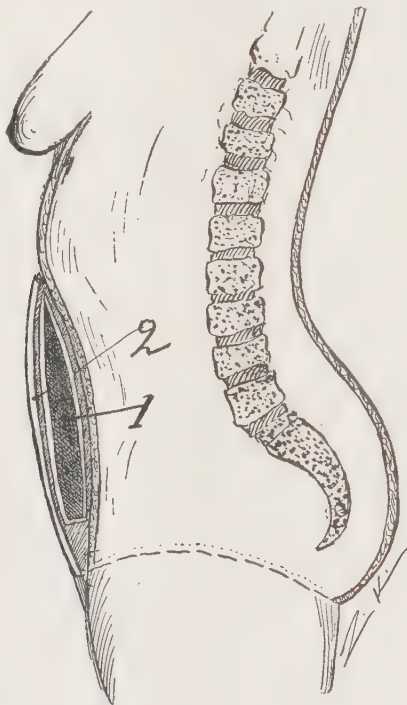


FIG. 6.—Profile view to illustrate the pressure of the rubber air pad on the abdomen. 1, distended rubber pad; 2, wall of abdominal supporter over rubber pad.

single sheath the operation may be performed without entering the peritoneal cavity. I think this operation has a large field of usefulness, for it can be performed without entering the peritoneal cavity and after any laparotomy.

2. *For Gastro-duodenal Dilatation—Gastro-enterostomy.*—In all cases of advanced splanchnoptosis gastro-duodenal dilatation exists, due to compression of the transverse duodenal segment by the superior mesenteric artery, vein and nerve. I have carefully tested this matter in abdominal autopsies for nine years.

Gastro-jejunoscopy.—This I consider one of the best surgical methods to overcome extreme gastro-duodenal dilatation. I proved in gastro-je-

junostomy in dogs, ten years ago, that it will enable the stomach to contract, because the food does not tarry in the stomach, but passes immediately into jejunum and ileum, the business portion of the tractus intestinalis. Any segment of the tractus intestinalis containing no contents, or over which no food travels, will remain contracted.

Any one can prove this by excluding a segment of the bowel from fecal circulation; it soon contracts and remains in that condition. In

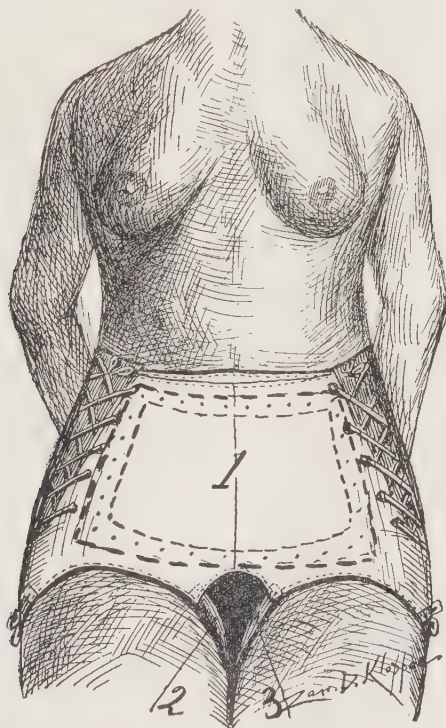


FIG. 7.—The rubber air pad is fitted to the abdomen inside the abdominal supporter. 2, 3 are rubber tubes to fix the abdominal supporter.

1894, Dr. Lucy Waite and I made an abdominal autopsy on a man aged seventy years, in which the stomach rested on the pelvic floor, presenting enormous gastro-duodenal dilatation. But the duodenum transversum practically remained in its original location and relation.

This illustrates that, since the duodenum cannot pass distalward with other viscera, on account of its attachments, that it can be relieved only by turning the fecal current over another route. Gastro-enterostomy has, in the operation for relief of gastro-duodenal, a much wider and more useful range than for malignancy or stricture of the pylorus.

My first case of gastro-enterostomy for gastro-duodenal dilatation in 1894 was performed on a patient of Dr. C. Henry, of Fostoria, Ohio. This

patient vomited for nearly two years. At the operation the stomach and duodenum were found enormously dilated due to compression of the transverse segment of the duodenum by the superior mesenteric artery, vein and nerve. The stomach occupied the pelvis. I performed gastro-enterostomy with my segmented rubber plates. In 1901, seven years subsequent to the gastro-enterostomy, Dr. Henry informs me that she is perfectly well.

3. *Overlapping of the Fascia of the Abdominal Wall.*—This consist in dissecting the skin and subcutaneous fascia bilateral ward from the median line after which the entire remaining abdominal wall of one side is placed ventral or dorsal to the other like a double-breasted coat and fixed in position by sutures. The skin and fascia is sutured in the median line. This method of operating requires a long incision. Twelve years ago while on a visit to my friend Mr. Jordon Lloyd, of Birmingham, England, I was indelibly impressed with the utility of overlapping of fascial layers in hernial operations and have used the method more or less since with success. My experience with overlapping of abdominal fascial layers in abdominal sections has been very satisfactory. Heidenhain in an excellent recent production reports successful results by the overlapping fascial method. The umbilicus should be resected to avoid infection. The overlapping fascial method will aid in relieving the diastasis of muscoli recti abdominales which holds the viscera in delicate pain.

PRACTICAL CONCLUSIONS.

(a) There are three conditions to consider in splanchnoptosis, viz.: (a) relaxed abdominal walls, thoracic and pelvic diaphragms; (b) splanchnoptosis, and (c) gastro-duodenal dilatation. The disease is remarkably common, especially in females.

(b) The general effect of splanchnoptosis is compromising of circulation (blood and lymph) and respiration, traumatizing nerve periphery, impairing elastic and muscular tone of the abdominal walls and deranging secretions and muscular co-ordinations. Its results are malassimilation and neurosis.

(c) Splanchnoptosis stenoses or kinks the lumen of ducts, vessels and viscera.

(d) Splanchnoptosis is dislocation of the abdominal viscera. A viscus is dislocated when it is fixed permanently out of its place. More adults have dislocated viscera (from local peritoneal adhesions) than normal ones.

(e) Splanchnoptosis appears to be to a large extent of congenital predisposition, as its subjects are generally feeble, slender, atonic, highly neurotic, ill-nourished, deficient in vital force with weak physiologic and anatomic structures, with apparently a hard struggle to battle for life and against its forces. It seems sufficiently difficult for the splanchnoptotic merely to live, without attempting to work or reproduce children. They are consequently physically and mentally weak.

(f) The symptoms of the splanchnoptotic are complex and numerous. Each cause in splanchnoptosis produces a vicious circle of pathologic

effects on the viscera, circulation, respiration, nervous system and nourishment. Splanchnoptosis is often mistaken and wrongly diagnosed as neurasthenia, nervous exhaustion, hysteria, spinal anemia, menopause, etc., nervous dyspepsia and neurosis.



FIG. 8.—A female splanchnoptotic, a multipara, front view of relaxed abdominal walls of umbilicus. Observe that the relaxed abdominal walls pass sufficiently distalward to conceal the genitals from view.

(g) The large and complex groups of symptoms produced by splanchnoptosis must be considered independent of inflammatory processes.

(h) Large numbers of so-called dyspeptics are splanchnoptotics.

(i) Stellar's costal stigma of floating tenth rib I have not studied sufficiently to make a report.

(j) The splanchnoptotic appears neurotic, slender, and delicate, poorly nourished, pale, non-energetic, tired, and as a sad, helpless picture. Splanchnoptotics form a distinct class, with peculiar characteristics, like a class of tubercular subjects to which they are related.



FIG. 9.—A lateral view of a female splanchnoptotic, a multipara, showing relaxed abdominal walls and umbilicus.

(k) Splanchnoptosis is a general disease of all the abdominal viscera; the tractus intestinalis, urinarius and genitalis are equally affected, but from anatomic mechanism the tractus intestinalis suffers the most. All splanchnoptotics have genital ptosis and nephroptosis

(l) In diagnosis it is well to palpate every abdominal viscus, first in the horizontal position, and second in the erect position. The liver, spleen and kidney may appear dislocated only when standing erect. Frequently the muscoli recti abdominales are so distended that one can palpate every abdominal viscus through the fascia of the linea alba thinned by the elongation and separation of its fascial fibres.

(m) Since my clinic and private practice has consisted of 90 per cent of women, I cannot estimate the percentage of splanchnoptosis as regards sex.

(n) Gestation plays an influential role in increasing splanchnoptosis, as when the fascial and muscular fibre of some abdominal walls are once well elongated and separated they do not return to normal.

(o) The second, third, fourth and fifth decades of life are the chief ages of suffering in splanchnoptosis.

(p) The symptoms which predominate in splanchnoptosis are from the side of the nervous system, as depression, melancholy, excitability, irritability and the stigmata of hysteria. The patients complain much of disturbed circulation, causing cardiac palpitation and vigorous aortic pulsation or rhythm. It is a beating tumor, and some physicians mistake it for aortic aneurism, because the aorta is so much uncovered by viscera, and only covered by the abdominal wall.

(q) Two characteristic groups of symptoms of the splanchnoptotic exist, viz.: On the one side neurasthenia and sick headache, and on the other indigestion, poor appetite and constipation.

(r) I cannot agree with Meinert in attempting to establish an etiological relation between chlorosis and splanchnoptosis. I found no such relation in my series of observation.

(s) The large number of women who had not borne children, who have not laced tight, had no wasting disease, but having splanchnoptosis indicates a congenital predisposing factor.

(t) In splanchnoptosis there are two factors to study, viz., (a) congenital and predisposition, (b) exciting cause. The secondary or exciting causes are, any forces which tend to weaken the abdominal walls, as rapid child bearing, abdominal tumors, ascites, septic diseases, constipation, and wasting disease, such as the disappearance of fat in the abdominal wall and adjacent to the viscera.

Splanchnoptosis may exist without any known symptoms to the patient or to the physician, but the rule is that this may be accompanied by almost all kinds of gastro-intestinal disturbances. The chief symptoms of nephroptosis are (a) palpitation, (b) gastric disturbances, and (c) constipation. Though tight lacing and bands are accused of producing splanchnoptosis they are only a factor, as a predisposition in a weak abdominal wall so no doubt must exist.

Gastro-enteroptosis and nephroptosis almost always exist together. Nearly all splanchnoptotics are easily fatigued and show a neurotic existence. In women I observed that splanchnoptosis is commonly accompanied with backache, constipation, flatulence, varied local pains, all of which yield stubbornly to treatment.

Splanchnoptotics manifest vast disturbances in the circulatory system, as (a) palpitation, (b) vigorous beating in the abdominal aorta from partial uncovering of the viscera and thinning of the abdominal wall, also ganglion irritation, (c) compromising of vascular lumen, (d) headaches from irregular cerebral circulation, and (e) extensive abdominal venous stasis.

In splanchnoptosis the individual abdominal organs may be distinctly palpated either through the thin linea alba, between the diastatic recti muscles, or through the thin flaccid abdominal walls.

A good test of relaxed abdominal wall is to stand behind the patient and encircle the distal abdomen with the two hands and force the abdomen proximalward, when it will give relief by its support. Also a partial test to elevate the abdomen and suddenly let it drop, when the degree of fall indicates the degree of relaxation.

The gynecologist must analyze with care the differential diagnosis between reflexes from nephroptosis and reflexes from genital disease.

Nephroptosis frequently produces identical symptoms with those arising from genital disease. One of the tests to differentiate between the two organs will be the application of a well-fitting abdominal supporter to replace and retain the mobile kidney. The sympathetic nervous system holds an intimately and finely poised relation among the three systems of the abdominal viscera, viz., tractus genitalis, tractus urinarius, and tractus intestinalis. Disturbance of one system unbalances the others through reflexes.

Observe how nephroptosis from trauma of the plexus renalis produces reflex symptoms on the proximal end of the tractus intestinalis ending in nausea, pain, malassimilation, constipation and neurosis. Renal calculus induces vomiting, and sooner or later nephroptosis and gastric disease coexist. Genital disease gives rise to more gastric disturbances than the reverse, because the gastric secretions are deranged more easily than those of the genitals. Trauma or infection of the nerve periphery of any abdominal system of viscera soon deranges the motion and secretion of the other two abdominal systems. The connection between diseases of the uterus (genitals) and gastric (digestive tract) is profound and intimate. Disease of the uterus and stomach frequently coexist. A differential diagnosis between the symptoms arising from nephroptosis, from the genitals or stomach, is often difficult, as symptoms may be referable to any one of the viscera. This may be due, first, to the nerve tract, whose centre is not in the brain or the spinal cord, but in the sympathetic nervous system. From reflex action symptoms arise which relate to kidney or genitals. The reflex tracts being anastomosis ovarica, anastomosis pudendohemorrhoidalis, anastomosis genito-gastrica, anastomosis cutaneo-cavernosa, collateralis and the nervi splanchnici. Also the anastomosis utero-coelica and anastomosis utero-cerebro spinalis, also anastomosis reno-coelica. The immediate roads of the reflex are direct connections of the vagus (excluding the ganglion-abdominale) with the sympathetic nervous system. The second manner in which mistakes may occur are due to dislocation of the respective organs. The circulation only plays a minor role in this connection.

As splanchnoptosis is a general disease, local operations as nephropexy, uteropexy, will appear of limited value.

The tartaric acid and bicarbonate of soda method is a practical means to demonstrate gastro-duodenal dilatation. Inflation of the stomach by air is also a good method. The two operations I offer after five and six years of test are both general and local. The local is gastro-enterostomy which can be immediately followed by a general operation, i. e., the union of the two recti abdominales in a common sheath.

The non-surgical treatment for splanchnoptosis is through water drainage of the tractus intestinalis, tractus urinarius and tractus perspiratorius, with exercise and massage of the muscles.

Of the abdominal supporters I consider the best an ordinary elastic support, with a rubber air pad which can be placed inside the binder and distended with air. I have invented such a pad, and find it gives excellent results.

Glenard, Schwert, Virchow, Stiller, Meinart, Ewald, Landon, Boas, and Ameill have written excellently on splanchnoptosis.



Mosquito Pastilles.—

1. Carbolic acid..... 6 fl. drs.
Potassium nitrate, powdered 1½ av. ozs.
Insect powder..... 5 av. ozs.
Charcoal, powder 10 av. ozs.
Oil of pennyroyal..... 2 fl. drs.

Mix. and with powdered tragacanth and water form the whole into a mass, and mold into pastilles and dry.

2. Thyme..... 2 av. ozs.
Lavender flowers..... 2 av. ozs.
Insect powder..... 2 av. ozs.
Potassium nitrate, powder 2 av. ozs.
Potassium chlorate, powder 1 dr.
Tragacanth, powder..... 3 drs.
Oil of pennyroyal..... 1 fl. dr.

Mix well, add sufficient water to form a mass, divide into pastilles and dry.

Mosquito Powder.—

1. Oil of eucalyptus..... 1 fl. oz.
Talcum, powder..... 2 av. ozs.
Starch, powder..... 14 av. ozs.

Mix. This powder is to be rubbed into the exposed parts of the body to prevent the attacks of the insects.

2. Oil of pennyroyal.... ½ fl. oz.
Naphthalin, powder.... ½ av. oz.
Starch..... 16 av. ozs.

Mix well and sift. This is to be used like the preceding.—*Meyer Bros. Druggist.*

Methods of Diagnosis: Surgical.

BY CARL E. BLACK, M. D.,

JACKSONVILLE, ILL.

Read before the Morgan County (Ill.) Medical Society.

WHEN the committee assigned me as one of nine gentlemen to present the subject of "Methods of Diagnosis: Medical and surgical," I was greatly at a loss to know where to begin. As this subject includes all that is most important in both medicine and surgery, and embraces the very foundation of our success in practice, it certainly presents ample field for selection and might appropriately furnish material for this or any other society for at least a five years' course of monthly meetings.

Of course the committee did not expect that we would touch upon any considerable number of subjects, as it would be impossible even to read the briefest outline of the whole subject in the time.

Being assigned to the surgical side of the subject, finally decided to select suppuration as my special topic for presentation. I did this because it is as interesting and important to the specialist as to the general practitioner and to the surgeon, as both.

We are all dealing every day with suppuration, and no doubt every day brings to us the perplexing doubt as to whether our case is simply one of inflammation or has progressed to the stage of suppuration.

We will exclude from our consideration hyperemia or any of its results. In order to be more definite we must recognize that hyperemia, or congestion, may result in speedy resolution. It may form an acute swelling, which may subside for a short time, or which may become a chronic enlargement. Hyperemia may result in gangrene on account of pressure, or may be followed by changes in nutrition leading to either atrophy or hypertrophy. You must bear in mind that the result of hyperemia is exudation, i. e., the escape of blood plasma from the vessels into blood cavities or tissue interspaces (Park 22).

Perhaps before really approaching the subject of diagnosis of suppuration, a few words regarding inflammation, which always precedes suppuration, will be in order. Inflammation is an expression of the effort made by a given organism to rid itself of or render inert noxious irritants arising from within, or introduced from without (Sutton modified). In 1870 Burdon Saunderson said, "Inflammation is the succession of changes which occur in the living tissue when it is injured, providing the injury is not of such a degree as to at once destroy its structure and vitality."

I would call your attention especially to the word injury in this definition. Before the days of bacteriology inflammation was considered to be a harmful and destructive process, but now we know that it is really Nature's means of protecting herself against noxious micro-organisms and keeping them out of the general system. I shall call your attention especially to the important point and difference between hyperemia and inflammation. Hyperemia may be non-specific, i. e., accompanied by no micro-organisms. True inflammation is always specific, i. e., accompanied by micro-organisms.

We are indebted to Cohnheim for the first clear recognition and description of the basis of migration or diapedesis of leucocytes. While in hyperemia nothing but blood plasma escapes from the vessels; in inflammation the leucocytes themselves escape. These leucocytes slip out, probably by their ameboid movement, between the cells of the vessel walls. These leucocytes, as well as the wandering cells, multiply rapidly. There is greatly increased nuclear activity (Karyokinesis).

In order to arrive at a clear diagnosis of inflammation and suppuration we must recognize that three elements enter into their production. First, the tissue, second the blood, and third specific organisms. Without living specific organisms we can have no inflammation, as defined by modern pathology.

On this point I cannot do better than quote Roswald Park (page 47): "When once the irritants (specific micro-organisms) are present there begins that very active conflict which Virchow has so graphically alluded to as the 'battle of the cells.' Now the mysterious chemotactic properties of the component substances manifest themselves, and now phagocyte is drawn toward bacterium or the reverse, while the tiny war goes on with sometimes varying results, it being a question which can prove the victor in the conquest. This is no fiction of the imagination but is again a contest which may be seen under the microscope in certain of the lower animals, while its results may be seen in the examination of pus from any human source. In another place I have likened also this conflict to that in which certain enemy resort to poisoned weapons, because modern biological chemistry has now shown very evidently that it is a part of the life history of many of these micro-organisms to produce, probably as excretory products, albuminoid or other substances having sometimes extremely toxic properties."

Whenever in this battle of the cells, the system represented by its leucocytes and phagocytes, is unable to clear away the dead cells, and carry them off in the circulation to be disposed of by the proper organs, but some are allowed to remain dead on the battle field, so as to speak, we have pus. "Each pus cell represents the dead body of a phagocyte."

These phagocytes have perished while trying to defend the body from the invasion of these specific micro-organisms, thus whenever the circulation is unable to carry away the dead cells, those remaining are pus. We have the beginning of an abscess. The suppurative process has begun. Inflammation has advanced another step, and now embraces suppuration. The circulation is unable to carry the dead from the field of battle. A strong wall is thrown up. The dead are within it. It is an abscess.

With this brief review of the pathology of inflammation and suppuration, the next point of interest in arriving at a correct diagnosis will be a consideration of the circumstances which favor suppuration. In the light of modern pathology we should not be satisfied by simply recognizing that abscess exists, although this is sometimes very difficult to determine. We should go further and try to form some idea from the character of the pus, something of the infecting agent with which we have to deal. First, virulence of the infecting organism. We all know from every day experi-

ence that similarly appearing abscesses and suppurations do not always act in the same way. For example, we have two cases in which the clinical history and the general appearance indicate felon, that is periosteal inflammation which has resulted in suppuration.

Both cases are promptly incised on the third or fourth day. The first is practically well within a week; the second progresses in spite of our incision and drainage. The bone and all the tissues become infected, and we have a diffuse inflammation.

Why this difference? Probably we have observed closely we will notice that in the first case referred to, the pus is of a dirty white color, moderately thick, with a sour paste odor, indicating that it is produced by the staphylococcus. While in the second the pus is thin, white and perhaps contains some small threads of tissue, indicating that it is produced by the streptococcus.

These differences in the character of the pus evacuated are exceedingly important. For example, the colon bacillus produces a thick, brownish pus with a fetid odor, or the pus may be thin and dirty white, but contain thick, brownish masses. Pus associated with the bacillus tuberculosis may be thick and curdy like white paste, or at a later stage may be thin with a greenish color, and contain small cheesy elements. We are beginning to note some well marked differences in the general appearance of pus produced by different infecting germs.

In many inflammations which go on to suppuration there is an association of micro-organisms, which of course modifies the character of the pus produced. The personal habits and environments of our patient, hereditary, predisposition and hereditary influence are important considerations in arriving at a correct understanding of the case. Pre-existing diseases should always be inquired into.

If we have an inflammation in a patient of a marked uric acid diathesis, or with marked lithemia or acetoneamia, or with syphilis, diabetes, scurvy or any one of a large number of long existent toxemias, we need not be surprised at having suppuration in spite of our very best efforts to allay an inflammation prior to suppurative stage. In such patients the immunity is low and their vulnerability greatly increased. Inflammation in such patients almost always eventuates in suppuration.

Local predisposition is an exceedingly important factor. Inflammation in a part chronically congested, or in a part which is very anemic, or in a part which has previously been the seat of infection, is much more liable to go on to suppuration. To illustrate this point I might mention several recent experiences. One is a diffused cellulitis in the thumb, which began apparently as an ordinary felon. The history of the case shows that this patient has had three felons previously on this same thumb, thus we have a pronounced predisposition to suppurative process. Another is a case which was recently operated for very large carcinoma of the breast and axillary glands. I did not discover until too late that this patient had three times been the subject of widespread erysipelas. Shortly after our operation the erysipelas set in with all its vigor. The patient recovered, but the condition was of great annoyance. Here we have a predisposition.

To come more directly to the diagnosis we recognize inflammation by redness, swelling, increased heat and pain. Usually the increased heat is accompanied by some increase of bodily temperature. The seat of inflammation may be such as to make it impossible to observe any redness or to elicit any evidence of swelling even by careful palpitation and percussion. Often our only general symptoms on which to base a diagnosis are increased bodily temperature and localized pain. Pain itself is not always localized in the beginning of an inflammation. For example: we frequently have general abdominal pain or pain referred to the region of the stomach in the commencing of an inflammation of the vermiform appendix. Pain frequently does not become localized until the second or possibly the third day, and in rare instances it may never become localized. Also we may have the formation of a tubal or appendical abscess without history of fever, or without any rise of temperature at the time of examinations made by the physician.

Presuming, however, that we have arrived at a satisfactory diagnosis of inflammation, how are we to determine whether or not suppuration has taken place? In arriving at the diagnosis of suppuration we have present a history of one or more of the cardinal signs of inflammation—redness, swelling, heat and pain. One or all of these signs may be present, according to the location of the inflammation.

When suppuration is about to supervene, the area of congestion becomes more definitely circumscribed. Edema of the overlying and surrounding tissues becomes apparent and greatly increased in all directions this is demonstrated by pitting on pressure. Inflammation without suppuration rarely pits on pressure. There is brawny infiltration of the infected area, and if the suppuration is superficial, the skin overlying has a distinct smooth, glossy appearance. Vesicles form on the surface, and fill with a reddish serum; there begins to be softening in the center of the infiltrated area and soon fluctuation can be demonstrated by palpitation. Manipulation to demonstrate fluctuation should be parallel to and concentric with the axis of the limb.

We often notice that as suppuration begins pain will be markedly diminished. This, no doubt, is the cause of destruction of cells, which include nerve terminals. In deep-seated abscesses, and sometimes in those which are superficial, the presence of pus is not suspected until a chill comes on followed by fever, malaise and sweating. These are prominent symptoms of septic intoxication. These symptoms show that the poisons of infection, have been absorbed into the general circulation. Following such chill the seat of inflammation may be enlarged and tender. Distant parts may become swollen; the patient may have continuous fever, showing that we have more than septic intoxication, but have passed on to the stage of septic infection. The difference between septic intoxication and septic infection is simply this: in septic intoxication the poisons generated by micro-organisms are taken up by the circulation, giving rise to the symptoms above enumerated. In septic infection the micro-organisms themselves are transferred by the circulation to distant parts, giving rise to new foci of inflammation and suppuration.

Let us consider for a moment some of the more common forms of suppurative disorders.

A boil or furuncle is a localized infection around a hair follicle usually, and involving a small portion of skin and subcutaneous tissues. Boils can be produced experimentally by rubbing a pure culture of staphylococci into the skin. To diagnosticate a boil we have the history of a small irritable red pimple usually with a hair in the center. This increase in size, becomes more red, more painful, swells into a small conical tumor, forms localized head and is very tender to the touch. If allowed to go on, it will usually burst spontaneously discharging its pus. The subcutaneous tissue, the vitality of which has been destroyed by the infecting germs, will slough away, and the wound heal rapidly by granulation. If the patient is negligent and careless, using no antiseptic and little or no cleanliness, the pus discharged from the first boil will be rubbed into the skin and produce more boils. No doubt every one of us has seen examples of such reproduction of boils. In arriving at a diagnosis of boils, which seems perhaps too simple to be considered, we must not overlook a diagnosis of the patient. I doubt whether a perfectly normal individual ever has boils. Such an individual might have an abscess formed by the introduction of staphylococci or other organisms through an open wound, but would probably never have boils. Therefore we are brought back to the personal habits and environments of a patient, and if we are to institute a correct treatment we must arrive at a correct diagnosis of his general physical condition and personal habits.

Carbuncles differ from boils in the degree of infection and amount of subcutaneous tissue destroyed, and also in the more debilitated condition of the patient. The presence of carbuncle should lead us to examine the patient carefully in every particular, and especially to detect the presence of albuminuria or diabetes. Carbuncles involve a much wider area of tissue than boils. There is a hard, painful infiltration of subcutaneous tissue or skin assuming a dusky red color, the swelling increases in size in all directions and may become several inches in diameter. Boils will form on this surface over the infiltrated area, the center of the infiltrated area will become soft and boggy, showing the destruction of tissue beneath. Pus from beneath will find its way to the surface from the sites of sebaceous glands and hair follicle, at a number of points, giving rise to sinuses running in various directions from the infiltrated area. Carbuncles are to be distinguished from boils by the fact that boils affect the skin primarily, while carbuncles affect the subcutaneous tissue primarily. Boils are multiple, each one forms a separate and distinct abscess, with a single opening through which the slough and pus are discharged. Carbuncles are single, larger, and flatter, and discharge through a number of openings. Carbuncles are to be distinguished from gummata, first of all, by the syphilitic history which the patients will give in the latter disease. Gummata are more frequently multiple; do not often attain a great size and are not very painful; they ulcerate on the surface, leaving sores, but not a great deal of sloughing.

One of the commonest types of inflammation, leading to suppuration and destruction of tissue, is felon or whitlow, which occurs in several dif-

ferent forms. The first form is little more than a boil, occurring under the dense tissue of the fingers. The second is a true cellulitis, beginning in the pulp of the finger and spreading upward until it may involve the whole palm. The third is a suppurative teno-synovitis of the tendon of the flexor sheathes, and the third, which is the common felon, is the subperiosteal. In the last two forms of inflammation the presence of pus is so important that we should, at the earliest possible moment, detect it. If pus is allowed to remain any length of time irreparable destruction will take place. Better open too early than too late. Occasionally a felon, or rather a subperiosteal whitlow, will begin as an acute necrosis of the terminal phalanx, usually caused by infection around the matrix of the nail. Without the too early detection evacuation of pus immediately, the inflammation will spread to other joints, and it may do so regardless of drainage.

I have such a case now under treatment where only the most prompt and energetic use of incisions and drainage has confined the process to one finger.

All infectious inflammations wherever located, are likely to terminate in suppuration. The inflammation may be deep-seated so that it is impossible to reach it by palpation on direct examination. In such cases particularly, and at times in any and all kinds of inflammations, we must resort to indirect methods of examination to assist us in arriving at an earlier diagnosis of suppuration than can otherwise be made. For example, we suspect that pyosalpinx or an appendicitis, or an injury to bone has passed into the suppurative stage, how are we to determine whether or not this is true? Within recent years our means of arriving at reasonable positive conclusions in such cases, has been greatly increased by the systematic study of the blood, which has been made by numerous careful investigators. Such patient shows malaise, followed by sudden chill and high fever. The question which is of importance under these circumstances, is to know whether these symptoms are due to extension of inflammation and suppuration, or perhaps to malaise. Here modern laboratory methods step in to give us positive aid by examining the blood. If the case is one of malaise, the specific organisms can be found and demonstrated. If it is due to suppurative and pus formation, we will find the white blood corpuscles increased in number. If suppuration has taken place we will have peptonuria. The discovery of leucocytes is one of the most important advances recently given the physician. Like other new discoveries many expect too much from it, and throw it aside in disgust while others fail to realize any value in it, and never take it up. The most careful observers, however, are making more use of leucocytes in the diagnosis of obscure inflammations which change to suppuration. Like examinations of urine, leucocytosis will give us a positive diagnosis in only a few conditions. In other conditions it will give us valuable negative aid, and in many more conditions it will give material assistance. If we want to receive the practicable assistance, which blood examinations can give, we must not be satisfied with one examination. The blood should be examined every few hours. If then we find a greatly increased leucocyte

count, and specially if this count reaches eighteen to twenty thousand we can be almost certain that suppuration has taken place, no matter whether we are dealing with a felon or an appendicitis, a boil or a periostitis, a carbuncle or a pyosalpinx. It is important to remember that we never have leucocytes in tuberculosis; we never have leucocytes with effusions.

Another important consideration in examining the blood, and one which has been persistently overlooked, is the patient's condition. "Thus if infection is mild, and the patient's resistance is good a slight leucocytosis results; if the infection is moderate or severe the resistance is good and moderate, or high leucocytosis follows, while if the infection is severe and the resistance poor, we shall have no increase, but often a distinct decrease in leucocytosis (leukopenia), the organisms apparently being overwhelmed by the severity of the infection makes no resistance. Such cases are almost always fatal."

Two other points in complete examinations are now coming to the front. Too little attention has been given to hemoglobin determination. In surgical conditions it is said that Miknlicz never operates on a patient where the hemoglobin estimation is below thirty. It has been suggested that none but the most urgent operations should be undertaken until the hemoglobin estimation can be raised to at least fifty. If this rule is followed no doubt the number of patients dying from collapse would be greatly decreased.

More recently considerable attention is being given to the study of micro-organisms found in the blood during the process of inflammatory disorders. This field, while not yet much used, will undoubtedly give important results in the future. The paper published by John B. Deaver, in the Philadelphia Medical Journal, of November 23d, 1901, entitled "Some Experiences with Blood Examinations" seems to me to lead to some wrong conclusions regarding the value of blood examinations. There are few forms of examination which are not susceptible to errors, and if we are to throw aside such examinations because they at times lead to erroneous conclusions we would have little left. There are, however, constant positive signs and symptoms all in.

We may have inflammation which has gone on to suppuration, without visible redness, without appreciable pain, without noticeable swelling, without increased local heat, or demonstrable systematic fever, without feasible ademonia, without probable fluctuation, without malaise, chills or sweats. No doubt each one of you can recall cases in which not only one and all of the ordinary signs and symptoms of suppuration and inflammation have been absent, for this recent we should not throw aside such a valuable aid as leucocytosis, and the demonstration of micro-organisms in the blood, because they are sometimes absent, rather we should be more persistent in the use of every possible aid to discriminate differential diagnosis in inflammatory disorders, and should rise at the earliest possible moment at a knowledge of the existence of suppuration.

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Scleroderma.

BY F. SAVARY PEARCE, M. D.,

PHILADELPHIA,

Professor of Nervous and Mental Diseases in the Medico-Chirurgical College of Philadelphia; Neurologist to the Philadelphia Hospital.

IS a condition of localized or diffused induration of the skin. There are two types: the circumscribed, which corresponds to keloids of Addison and to morphea; and the diffuse in which large areas are affected. This disease affects females more frequently than males, and occurs in early middle life; although it does occur in spurious form early in the so-called type sclerema neonatorum—by some said to be a different affection. This latter affection has occurred only in the French and German races so far as reported. The form mostly seen in this country, is the circumscribed type when there are patches ranging from a few centimeters in diameter to the size of the hand or larger, waxy in appearance, and to the touch is hard, brawny and inelastic. There may be precedent hypernemia. Following the manifestation there may be pigmentary changes either of excess or absence—leucoderma. The sensory disturbances are rare. Perspiration is diminished or absent. This type is more common in women than in men, and is situated about the neck and sometimes along the courses of the nerves. Patches may develop with great rapidity, may last but a few days or persist for years.

The diffuse form, though less common, is more serious. It appears in the face or in the extremities. The patient notices the skin is unusually hard or firm, and there is a sense of tenseness in making accustomed movements. Gradually a brawny induration develops, the skin becomes united to the subcutaneous tissues, and it cannot be picked up or pinched. The skin may look natural but more commonly is glossy, dry and unusually smooth. This form is apt to affect in order the upper extremities, the trunk, the head or face, the upper portions of the lower extremities; and is least frequently universal. Occasional sensory disturbances are found, the disease may last many years, and recovery may occur, or the disease may be arrested. The patient may be carried off by pulmonary or renal disease. Rheumatism and endocarditis may complicate, or it may be associated with Reynaud's, as reported by Mackenzie. The pathology of the disease is unknown, probably a tropho-neurosis dependent upon changes in the arteries of the skin leading to connective tissues over growth.

Sclerodactylie is the same disease manifested by symmetrical involvement of the fingers which become shortened, deformed and atrophied.

Ulcerations have been met with and great deformity of the nails. This disease is occasionally associated with scleroderma proper.

AINHUM

Is a rare condition occurring in the negroes of Brazil, India, Africa, and occasionally in the Southern States. It is confined to the toes, usually the little toe. It commences as a furrow on the line of the digito-plantar fold which gradually deepens, the under side of the toe enlarges; usually without inflammation or pain, the toe drops off. The condition may last for years, however, before this is affected.



Intertrigo.—Dr. E. Saalfeld states that the non-irritating and non-poisonous character of euophen can be utilized to special advantage in pediatric practice. He has found the following powder of value in cases of intertrigo which had resisted treatment with all other remedies:

Euophen	3i-ii
Lanolin anhyd.....	3i
Talci venet. q. s. ad.....	3iii

—*N. O. Med. and Surg. Jour.*

Facial Neuralgia.—Medclaff has proposed this formula:

R Tincture of aconite-root.....	} equal parts.
Tincture of colchicum seeds.....	
Tincture of belladonna.....	

M. Six drops (in water) to be taken every six hours.—*N. Y. Med. Jour.*

Another for Mosquitoes.—

R Oil tar.....	1 oz.
Olive oil.....	1 oz.
Oil of pennyroyal.....	$\frac{1}{2}$ oz.
Spt. camphor.....	$\frac{1}{3}$ oz.
Carbolic acid	2 dr.

M. Sig.: To be applied occasionally.

Treatment for Corns.—Dr. E. L. Wood, of Dansville, N. Y., writes that ‘‘a radical cure for corns consists in paring the callosity as closely as possible without causing any hemorrhage, then placing in the center of the corn a very small drop of croton oil, and bandaging for twelve hours. Then remove the bandage, and paint the corn with reliable cantharidæ collodion; a pustular bleb will result, in the formation of which the entire callosity, nucleus and all, will be raised without very much pain from the tissues beneath, and can be easily removed. The process should be conducted under the care of a surgeon, to insure prompt sterilization of the part after the callus is removed. Healing has always been rapid, not requiring more than three or four days, with no liability to recurrence, unless the foot is afterwards abused.—*Canada Medical Record.*

MEDICAL MISCELLANY

A SIGN OF HEREDITARY SYPHILIS.—A French writer, Dr. A. Brunet, states that erosion of the first lower molar tooth is a pathognomonic sign of hereditary syphilis. This sign is said to be much more reliable than irregularities in the incisors for the reason that ossification of the first molars occurs at the sixth month of intrauterine life and the erosion is due to a partial interference with normal process of ossification.

MEDICAL TREATMENT IN AFGHANISTAN—Dr. Gray, in his work, "At the Court of the Amir," thus describes treatment for various maladies pursued in Afghanistan: "For fevers, dyspepsia, gout, headache, or any feeling of malaise, the barbers bleed their patients; but besides these, which may be called the irregular bleedings, there are regular bleedings every spring and autumn. These are generally done out-of-doors by the roadside. The barber squatting down by the side of his patient, makes his incision at the bend of the elbow; fortunately, not into the vein immediately over the great artery of the arm, the one usually bled from in England, but into one adjoining. The patient holds out his arm, allows the blood to drip on the ground till he thinks enough has run away. There is not the slightest attempt made to measure the quantity of blood lost. The only precaution taken is to avoid drinking any water for twenty-four hours afterwards, lest it should mix with the rest of the blood in the vein and make it thin, or, if they do drink any, they hold the wounded arm above their heads to prevent the water running into it."

NEED FOR NEGRO PHYSICIANS.—The Evening Post quotes from a recent article in the Chicago Record-Herald, in which President J. G. Merrill of Fisk University calls attention to the growing need of trained negro physicians and ministers. In many parts of the South the colored man has quite outgrown the old type of negro preacher, and there are no places where he does not need in his pastor a social guide and educator ready to direct the forward movement of the race. It is not generally known in the North that Southern white ministers, at least in many sections, decline to marry negroes. In one case a negro couple desirous of being married in an Episcopal church were only able to do so by passing themselves off for white persons after a long journey to the city in which they were not known. The negro doctor, as President Merrill points out, has "an amazing opportunity" among the eight millions of his race, inasmuch as the black man turns to a physician of his own color as readily as the white physician in the South turns away from colored patients whenever he can honorably do so. President Merrill was able to tell of the success of twelve negro doctors of Nashville, all doing well financially, and half of them amassing property. He reports also that it is easier for a colored physician to build up a self-supporting practice than for the white doctor. The necessity of good medical schools for negroes should be plain to all, even to those who doubt the wisdom of higher education in the classics and natural sciences. New York City would benefit if there were more competent and professionally high-minded colored doctors within limits to do missionary work in its "colored quarters."

THE Rush Medical College has decided to allow women to matriculate for graduation upon the same footing as men.

Proctitis.—Samuel G. Gant, in the Post-Graduate, divides the treatment of chronic proctitis into palliative and surgical. The palliative treatment consists in the removal of any irritating disease or foreign body in the colon or rectum which tends to aggravate or prolong the inflammation. Antiseptic, stimulating and cleansing remedies should then be applied to reduce the inflammatory process. The diet should consist principally of eggs, milk, cream, nourishing soups, broiled steak, baked potatoes, matzoon and koumiss. Fruits and vegetables may be taken in limited quantities, except when the stools are too frequent. As intestinal antiseptics the following are recommended by the author:

R Pot. permanganatis gr. i
Sodii sulphocarb. gr. v

M. Fiat capsula No. i. Sig.: One such capsule three times a day one hour after meals. The capsule should have an enteric coating to render it insoluble in the acid secretions of the stomach; or:

R Betanaphthol. 3 ii
Bismuthi salicylatis. 3 ii

M. et div. in chart. No. xxx. Sig.: From three to twelve powders in twenty-four hours; or:

R Salol.
Bismuthi salicyl aa 3iiss

M. Ft. chart. No. xxx. Sig.: One powder three times a day before meals.

When laxatives are necessary the salines are of benefit. Strong purgatives are contraindicated.

To reduce the inflammation and encourage the healing of ulcers the greatest benefit is derived from semi-weekly enemata composed as follows:

R Argenti nitratis. gr. xl
Aquae. Oi

M. Sig.: To be used as a local enema twice a week. If this should cause pain the rectum should be immediately irrigated with a physiologic salt solution.

Where the ulcers are stubborn to treatment the mucosa may be mopped frequently with the following:

R Bismuthi subnit. 3ss
Balsami Peru. 3i

M. Sig.: To be applied locally. A 10 per cent solution of ichthyol may be substituted for the foregoing.

Matthews recommends the following for such purposes:

R Bismuth subnit. 3ss
Iodoformi. 3ss
Olei olivae. 3iii

M. Ft. emulsio. Sig.: To be used as a rectal injection.—J. A. M. A.

MEDICAL MEMORANDA.

I believe aletris cordial to be a great remedy for the various uterine diseases. It acts, as an alterative and tonic, far in excess of any remedy I have ever used. I used it on a patient with congestion of the ovaries, with happy results; also on a patient with dysmenorrhea, with good results. Aletris cordial is certainly a fine uterine alterative and tonic, and fills the missing link in therapeutical agents in the treatment of uterine troubles.—W. T. Wilson, M. D., Bunker Hill, Ind.

Poisons and Their Antidotes.—If there is any one place where it is important to act promptly it is where a poison has been introduced into the system. Most of us are familiar with a few poisons and their antidotes, and we know that the rest can be found in our works on therapeutics, but when the emergency arises we have no time to consult a library—this explains the usefulness of the clever chart just issued by the Maltine Co. which should hang in every doctor's office. A card requesting it will secure you a copy.

Cereal Extractives to Modify Cow's Milk.—In order to prevent the firm clotting to which cow's milk is prone, some alkaline solution may be added, or some prefer to use a small quantity of a mucilaginous or other thickening substance, such as barley-water, a solution of gelatin, or one of the prepared foods, which act mechanically in obviating the formation of firm clots. Mellin's food may be used; in this the starch has been converted into dextrin and maltose.—"Food in Health and Disease," I. Burney Yeo, M.D., F.R.C.P.

The Question.—After many satisfactory trials of a remedy have you ever experienced a time when all the indications were the same, yet the article prescribed did not seem to give results? You invariably presumed that the old stand-by had lost its efficacy when in all probabilities you were not using the genuine product, but a substitute. In diseases of women, such as leucorrhea, endometritis, gonorrhea, vaginitis, etc., where so much depends upon actual results it is imperative that the genuine Micajah's medicated uterine wafers are used and not a substitute. Only successful preparations are imitated, hence the large number of substitutes of the genuine Micajah on the market.

Putrefactive Processes.—As an antiferment, to correct disorders of digestion, and to counteract the intestinal putrefactive processes in the summer diarrheas of children, listerine possesses great advantage over other antiseptics in that it may be administered freely, being non-toxic, non-irritant and non-escharotic; furthermore, its genial compatibility with syrups, elixirs and other standard remedies of the materia medica, renders it an acceptable and efficient agent in the treatment of diseases produced by the fermentation of food, the decomposition of organic matter, the endo-development of fetid gases, and the presence or attack of low forms of microzoic life. An interesting pamphlet relating to the treatment of disease of this character may be had upon application to the manufacturers of listerine, Lambert Pharmacal Co., Saint Louis.

The Analytical Chemist.—Recent advances in medicine have made the analytical chemist and pathological and chemical laboratories necessary in a sense which could not have been appreciated a few years since. The multiplication of these laboratories will be accomplished in time; we are not certain that there is call for more than now exist at the present time, in fact we would fear that multiplication would be accompanied by deterioration. Certainly the really excellent laboratories are abundantly caring for the needs of the profession, and by the aid of the telegraph and rapid transit they are abundantly accessible. One of the most popular of these is that of Reed & Carnrick, located at 42 to 46 Germania Ave., Jersey City. In matter of accuracy, promptness and reasonableness of fees Reed & Carnrick cannot be excelled.

Ecthol in Scarlet Fever (by John M. Turk, M.D., Canton, Ga.)—I feel called upon to say something plain and practical in regard to the usefulness of ecthol in the above disease. I have used ecthol for one year in an epidemic of scarlet fever, and I must say that it has more than met my most sanguine expectations. It has accomplished more than any agent I have ever used in a practice of forty-three years. Ecthol robs scarlet fever of all the distressing sequels, such as nephritis, ear complications, adenitis, membranous angina, etc., if the remedy is given early enough, and as often as every two or three hours, in bad cases, until desquamation is over, then not so often. A great many of my cases were malignant and quite a number ushered in with convulsions. In some of my malignant cases I gave double the prescribed dose. It prevents in a large degree the disintegration of cellular tissue, and will not disappoint any who may use it in scarlet fever.—*New Orleans Medical and Surgical Journal*.

Hysterectomy for Cancer of Uterus (By T. J. Biggs, M. D., Sound View Hospital, Stamford Conn.)—Mrs. T., age 47, American. Diagnosis, carcinoma of uterus. Entered hospital October 10, 1901, in a greatly run down condition. She was put on an absolute bovine diet, until October 14th, when at one o'clock she was given a high rectal injection of bovine and salt solution, three ozs. of each, and at two o'clock, under ether anesthesia, I performed an abdominal hysterectomy. Just before the uterus was detached from the vaginal wall, the patient showed considerable shock, and consequently the nurse was ordered to give her another high rectal injection of bovine and salt solution, two ozs. each. She responded to this beautifully. The operation was completed by the closure of the abdominal wound, the pelvis being drained through the vagina. Patient was put to bed with the pulse weak and 112. She was given another high rectal injection of bovine and salt solution, three ozs. of each. In twenty-five minutes she was conscious, pulse greatly improved, being 100, and full in character. No nausea, thirst or vomiting. The second day the vaginal drain was removed, the wound and the vagina treated by injections of bovine pure, employed t.i.d. Previous to every injection of bovine into the vagina, the cavity was washed out with borax solution. These injections were continued three times a day up to October 16th, when twice in twenty-four hours was deemed sufficient. She was now allowed a light general diet together with bovine. October 14th, the stitches were re

moved and the abdominal wound found to be healed. From this time on her recovery was uninterrupted and she was discharged cured, November 16th.

Summer Diarrheas of Children and Their Treatment (by M. A. Auerbach, Ph. G., M.D., New York City, Medical Inspector, Department of Health.)—The importance of these demand a separate consideration. Three forms more or less distinct can be recognized, viz., acute dyspeptic diarrhea, cholera infantum and acute enterocolitis. The old time treatment in these cases was a primary purge, calcined magnesia or castor oil. After the purge bismuth subnitrate or prepared chalk was given. Since the introduction of glyco-thymoline (Kress) the above mentioned methods have been cast aside. A very good and effective prescription which has given me most splendid results in these kind of cases, in conjunction with a carefully restricted diet is :

R Bismuth subnitrate..... dr. i
 Tr. opii deoderatum..... m x
 Glyco-Thymoline..... oz. ii
 Aqua rosarum, ad q. s..... oz. iv

Misce et.

Sig. Dr. one every three hours. (For a child one year of age.)

The modern treatment of these cases is of quite a different nature from those above mentioned. In the first place the fever must be combatted, and I know of no better method than a bath containing some glyco-thymoline, at about 80 deg., reduced by adding small pieces of ice to 70 deg. or 65 deg. Next pain, to reduce pain 100th of a grain of morphine sulphate can be administered to a child of one year. Stimulation with strychnia hypodermically, iced champagne to prevent vomiting, brandy, whiskey and other stimulants. One of the best methods for irrigating the large intestine is by introducing a small soft catheter through the rectum and injecting into the bowel a pint to a pint and a half of warm water containing about 25 per cent of glyco-thymoline. This I find removes and prevents the re-accumulation of the fermentative as well as the putrefactive products of the bowel. Should, however, the hyperpyrexia continue the douche may be given at a lower temperature. During convalescence great care must be taken in the feeding of the patient. Acute enterocolitis is an affection of inflammatory nature more severe than dyspeptic enteritis, chiefly of the ileum and colon, affecting especially the lymph follicles. This like the preceding is a disease of the hot months of summer, and the period of teething, especially. It is produced by the same causes as dyspeptic diarrhea. It is most frequent during the ages of six and eighteen months. It likewise may be a termination of dyspeptic diarrhea, or of cholera infantum. Treatment.—The general surroundings and hygiene necessarily play an important part. The medical treatment, however, is somewhat different. Anodynes are more imperatively demanded because there is greater suffering, and depletion may be needed in the beginning, by salines, though good judgment is required because the child's strength must be watched. The colon should be flushed with a solution of glyco-thymoline having a strength of 25 per cent. This I find answers admirably in these cases. The solution may be made with iced water.

An International Tuberculosis Congress.—An international conference on tuberculosis under the auspices of the Central International office for the Prevention of Consumption, will be held in Berlin from October 22 to 26. Each country has been notified of the approaching congress, and invited to send at least two delegates.

Severe Coughs.—In many instances cough is rendered more frequent and severe (especially of phthisis, asthma and bronchitis) from the irritation of the pulmonary structures by the accumulation of the secretions which the weakened respiratory efforts are unable to remove. Terp-Heroin (Foster) is regarded as the best of all remedies in such cases, because of its selective stimulating action upon the respiratory center and the muscles of respiration. It is of marked benefit in relieving cough of this character by rendering expectoration of the accumulated secretions an easy, painless process.

Blood for Babies.—In the course of the second year there comes a time when the milk diet begins to be insufficient for the growing child, and Nature calls for a change, while yet the system is in many cases unprepared for solid food. This kind of deadlock results in diarrhea or constipation, anemia, restlessness, fretfulness, etc. In such cases the fit and radical remedy will be found in the administration of say ten drops of bovine in milk, at intervals of three hours. Little Robert Valverdie, a patient who came under my care in the condition of malnutrition above described (after trying all the usual medical helps with no benefit), was immediately restored by the direct blood treatment. On the second day of taking bovine, the constipation and other trouble began to be relieved, and on the third day all signs of ill health had disappeared as if by magic. This simple treatment was continued for three weeks, the child thriving beautifully.—Case reported by Dr. T. J. Biggs.

Its Distinctive Feature.

One needs but to review the physiologic activities of the remedies recommended as tonics and reconstructives to realize the fact that practically all of them have some secondary effects which detract from their clinical value. It may be that they irritate the stomach and thereby excite repulsion on the part of the patient or even induce nausea and vomiting; some of them are astringent, others primarily stimulating but secondarily depressing—and so on through the entire category of remedies, objections more or less serious may be found. It is, therefore, a matter of great importance to employ a remedy which is not only free from deleterious by- and after-effects, but which adapts itself to use as routine remedy in the many and diverse conditions that call for tonic and reconstructive medication. The one remedy which many years of experience proves is entirely free from detrimental effects, is Gray's glycerine tonic. This preparation is of pleasant taste, agrees perfectly with rebellious and sensitive stomachs, patients never tire of its continued administration, and it is extremely effective in restoring tone and vigor to the entire system. The entire freedom of Gray's tonic from any thing like drug effects, is one of the strongest reasons why the best element of the medical profession have adopted the remedy for routine administration in all conditions associated with impairment of general health, lack of nervous energy, general exhaustion—in anemia, malnutrition, neurasthenia, and in chronic wasting diseases.